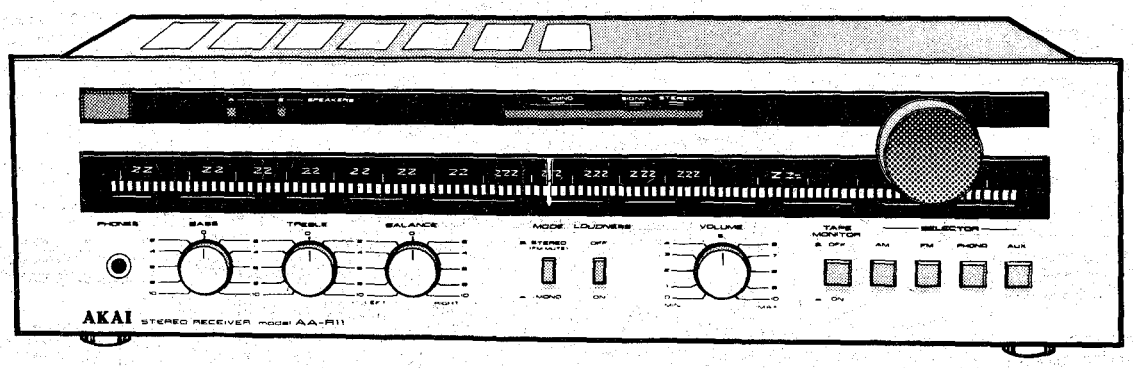
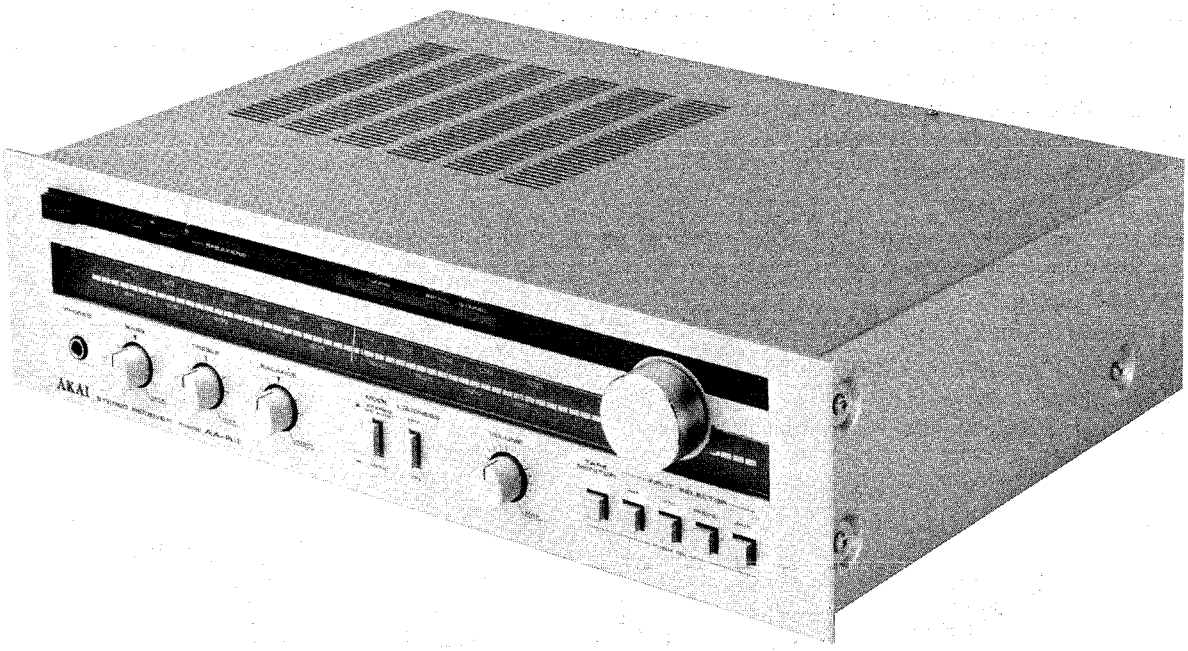
AKAI SERVICE MANUAL



FM AM STEREO RECEIVER

MODEL AA-R11



FM AM STEREO RECEIVER

MODEL AA-R11

TABLE OF CONTENTS

SECTION 1 SERVICE MANUAL 3
SECTION 2 PARTS LIST 21
SECTION 3 SCHEMATIC DIAGRAM 25

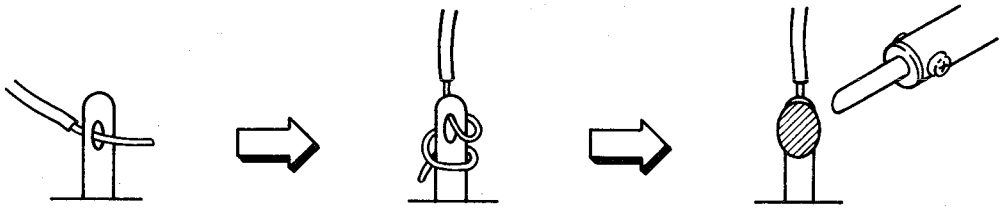
SAFETY INSTRUCTIONS

SAFETY CHECK AFTER SERVICING

Confirm the specified insulation resistance between power cord plug prongs and externally exposed parts of the set is greater than 10 Mohms, but for equipment with external antenna terminals (tuner, receiver, etc.) and is intended for [C] or [A], specified insulation resistance should be more than 2.2 Mohms (ground terminals, microphone jacks, headphone jacks. line-in-out jacks etc.)

PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ symbol parts are critical for safety.
   Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
   Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
   1) Wires covered with PVC tubing
   2) Double insulated wires
   3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
   1) Insulation Tape
   2) PVC tubing
   3) Spacers (Insulating Barriers)
   4) Insulation sheets for transistors
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SECTION 1

SERVICE MANUAL

TABLE OF CONTENTS

I. SPECIFICATIONS 4
1. MODEL AA-R11 4
II. DISMANTLING OF UNIT 5
III. CONTROLS 6
IV. PRINCIPAL PARTS LOCATION 7
V. VOLTAGE CONVERSION 8
VI. TUNER ADJUSTMENT 9
1. FM ADJUSTMENT 11
2. AM ADJUSTMENT 12
VII. CLASSIFICATION OF VARIOUS P.C BOARDS 13
1. P.C BOARD TITLES AND IDENTIFICATION NUMBERS 13
2. COMPOSITION OF VARIOUS P.C. BOARDS 14

For basic adjustments, measuring methods, and operating principles, refer to GENERAL TECHNICAL MANUAL.

I. SPECIFICATIONS

MODEL AA-R11

AMPLIFIER SECTION (IHF)

RATED POWER OUTPUT (BOTH CHANNELS DRIVEN)	
20 Hz to 20 kHz, 8 OHMS (T.H.D. = 0.3%)	15 watts
1 kHz, 4 OHMS	20 watts
POWER BAND WIDTH	15 Hz to 15 kHz
DAMPING FACTOR (4 OHMS)	40
RESIDUAL NOISE	0.8 mV
REQUIRED SPEAKER IMPEDANCE	
A, B/A + B	4/8 ohms
INPUT SENSITIVITY/IMPEDANCE	
PHONO (MM)	2.2 mV/50 kohms
AUX, TAPE	150mV/50 kohms
S/N (IHF-A) PHONO (MM)	75 dB
AUX, TAPE	85 dB
PHONO MAXIMUM INPUT LEVEL (0.1%, 1 kHz)	100 mV
FREQUENCY RESPONSE	
PHONO (RIAA)	30 Hz to 15 kHz ± 1 dB
AUX, TAPE	20 Hz to 20 kHz ± 1 dB
TONE CONTROL BASS (70 Hz)	± 10 dB
TREBLE (10 kHz)	± 10 dB
LOUDNESS CONTROL (VOLUME SET AT −30 dB POSITION)	
70 Hz/10 kHz	+10/+6 dB
OUTPUT LEVEL IMPEDANCE	
TAPE REC. OUTPUT (PIN)	150 mV/2.2 kohms
TAPE REC. OUTPUT (DIN)	35 mV/80 kohms

FM TUNER SECTION (IHF)

FREQUENCY RANGE	88 MHz to 108 MHz
USABLE SENSITIVITY (300/75 OHMS)	2.0/1.0 μV
50 dB QUIETING SENSITIVITY (MONO/STEREO)	5.0/50 μV
T.H.D. (MONO/STEREO)	0.1/0.2%
FREQUENCY RESPONSE	50 Hz to 13 kHz, +0.5, −1.0 dB
CAPTURE RATIO	1.5 dB
SPURIOUS RATIO	80 dB
IMAGE RATIO	60 dB
AM SUPPRESSION	55 dB
STEREO SEPARATION (50 Hz/1 kHz/10 kHz)	35/45/35 dB
SUB-CARRIER SUPPRESSION	45 dB
STEREO T.H.D. AT 60 dB, 1 kHz	0.2%

AM TUNER SECTION (IHF)

FREQUENCY RANGE	520 kHz to 1650 kHz
USABLE SENSITIVITY (EXT. ANTENNA)	25 μV
SELECTIVITY	35 dB
IMAGE REJECTION	35 dB
IF REJECTION	35 dB
SPURIOUS REJECTION	40 dB
S/N	45 dB
DISTORTION (T.H.D.)	1.0%

MISCELLANEOUS

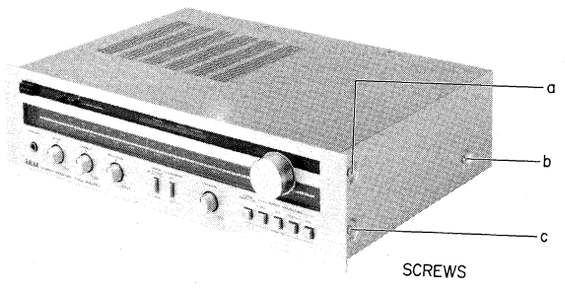
POWER REQUIREMENTS	220V, 50 Hz for Europe 240V, 50 Hz for Australia 110V/120V/220V/240V, 50/60 Hz switchable for other countries.
DIMENSIONS	440(W) x 120(H) x 330(D) mm (17.3 x 4.7 x 13.0 inches)
WEIGHT	6.8 kg (14.96 lbs)

* For improvement purposes, specifications and design are subject to change without notice.

II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating dismantling, please dismantle in the order shown in the photographs. Reassemble in reverse order.

1



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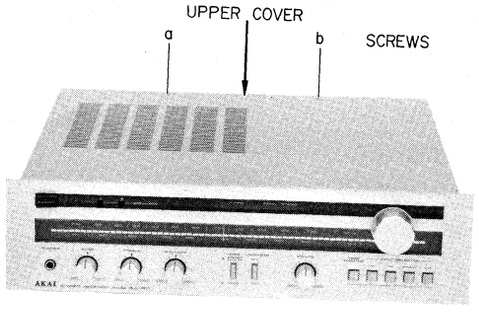

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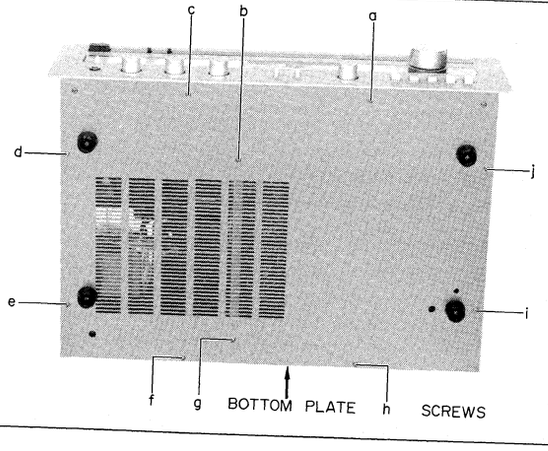

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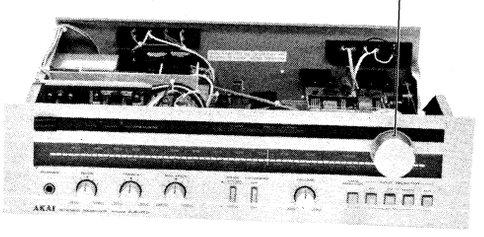

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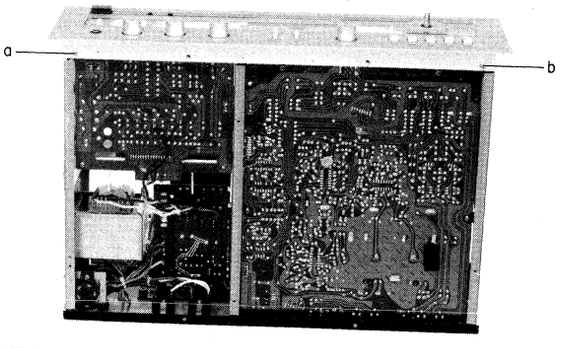

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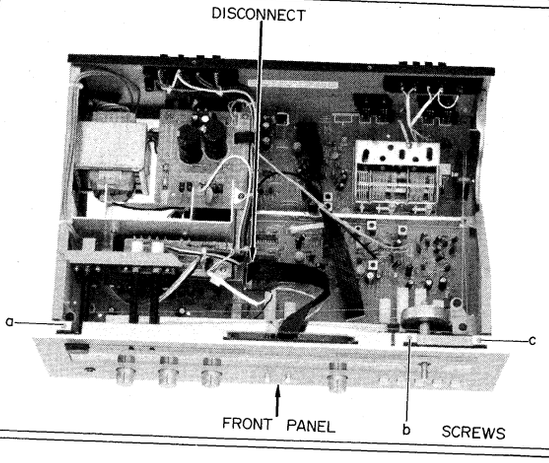

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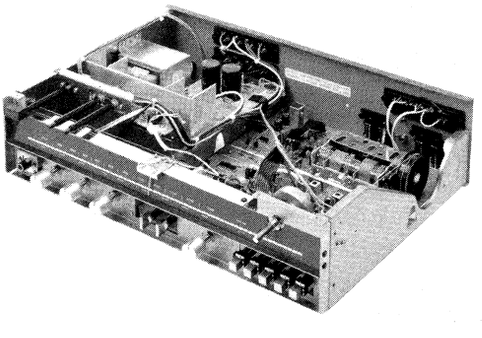


III. CONTROLS

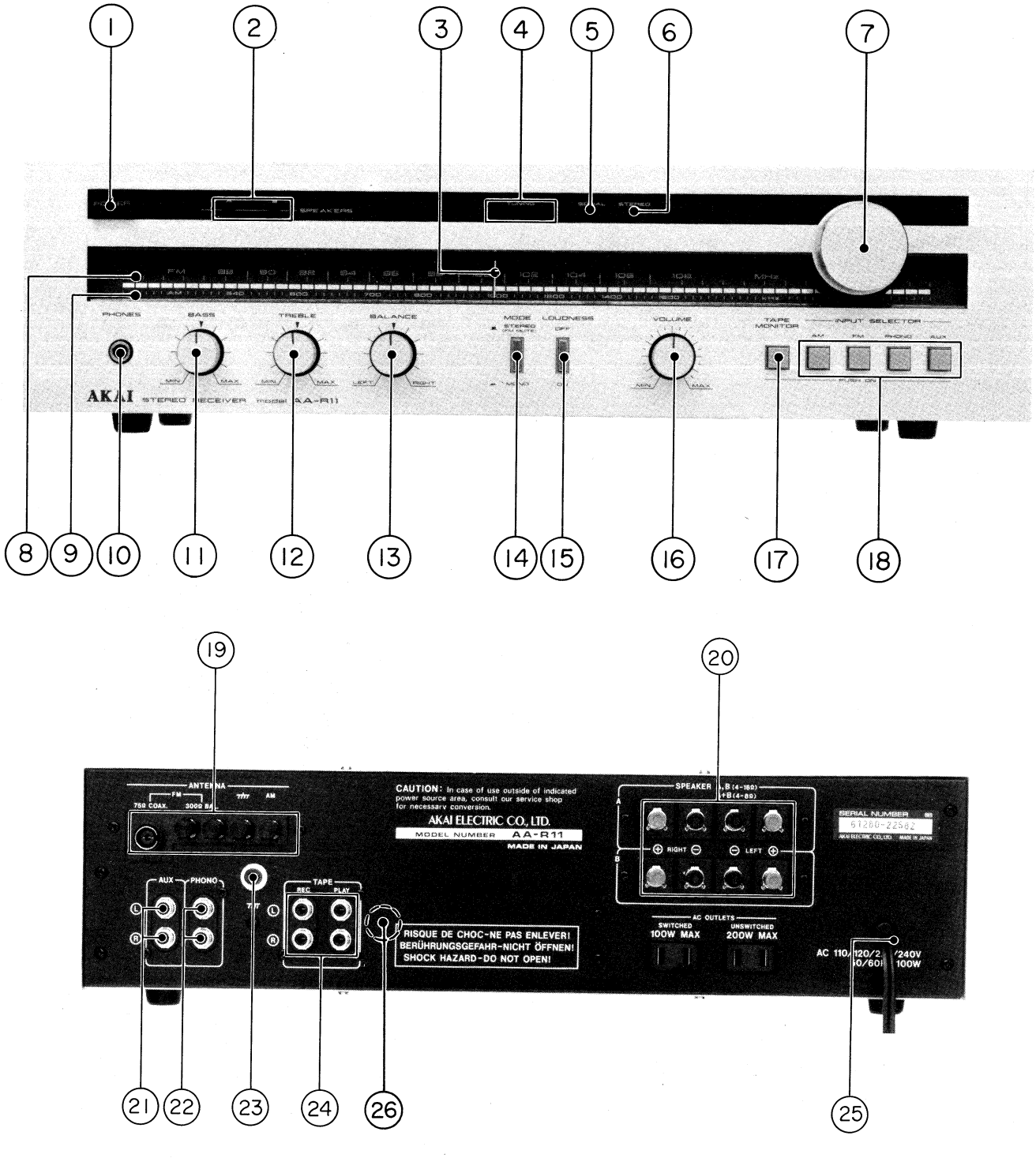


Fig. 1 Controls

1. POWER Switch
2. SPEAKERS Switches
3. Frequency Indicator
4. FM Centre TUNING Indicator
5. LED SIGNAL Strength Indicator
6. FM STEREO Indicator
7. Tuning Knob
8. FM Dial Scale
9. AM Dial Scale
10. Headphone (PHONES) Jack
11. BASS Control
12. TREBLE Control
13. Stereo BALANCE Control (L: left, R: right)
14. MODE Selector
15. LOUDNESS Switch
16. VOLUME Control
17. TAPE MONITOR Switch
18. Input SELECTOR Buttons
19. FM and AM ANTENNA Terminals
20. SPEAKER "A" and "B" Terminals
21. AUX Jacks
22. PHONO Jacks
23. Ground Terminal (⏚)
24. TAPE Jacks
25. Power Cord
26. DIN Jack (Some models are not equipped with this facility.)

VI. PRINCIPAL PARTS LOCATION

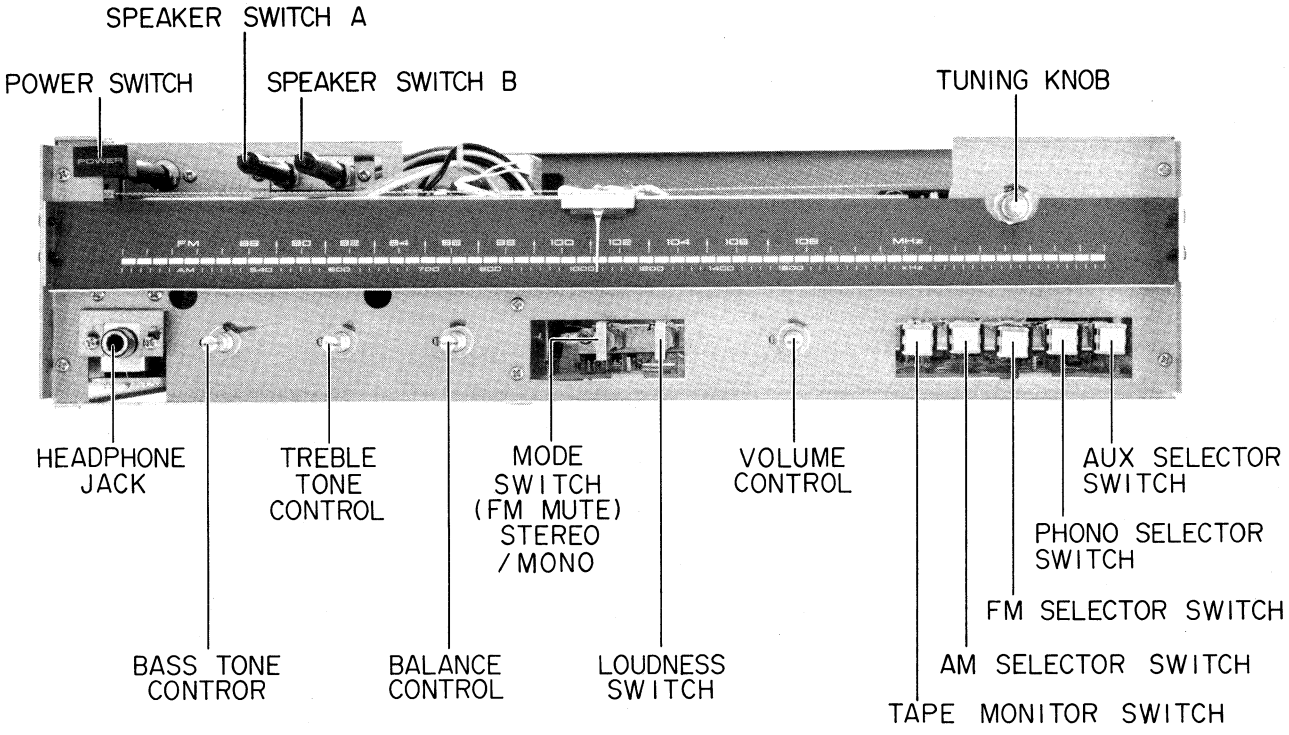


Fig. 2 Front View

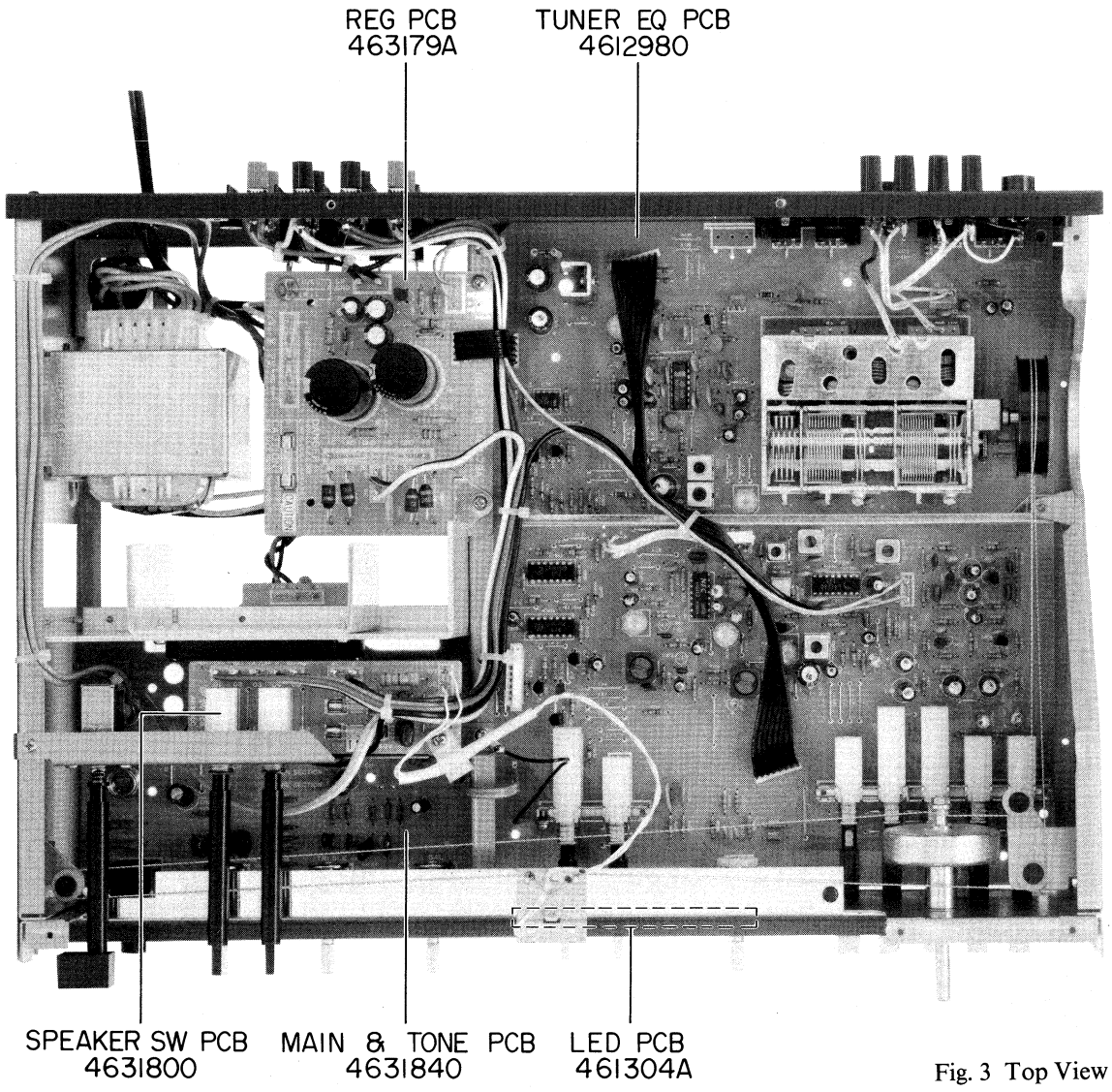


Fig. 3 Top View

V. VOLTAGE CONVERSION

Do not Attempt This Conversion Yourself.

Models for Europe are not equipped with this facility. Each machine is preset at the factory according to destination, but some machines can be set to 110V, 120V, 220V or 240V as required. If your machine's voltage can be converted, refer the following voltage conversion to a qualified Service Repair Shop or professional service personnel.

1. Disconnect power cord.
2. Loosen holding screws and remove the plate of the Voltage Selector at the bottom of the unit.
3. Turn with a screwdriver until the correct voltage for your area is shown.
4. Loosen holding screws and remove the top panel.
5. Change the fuse located on the power switch PC Board
   110V, 120V – 1.25A
   220V, 240V –630 mA

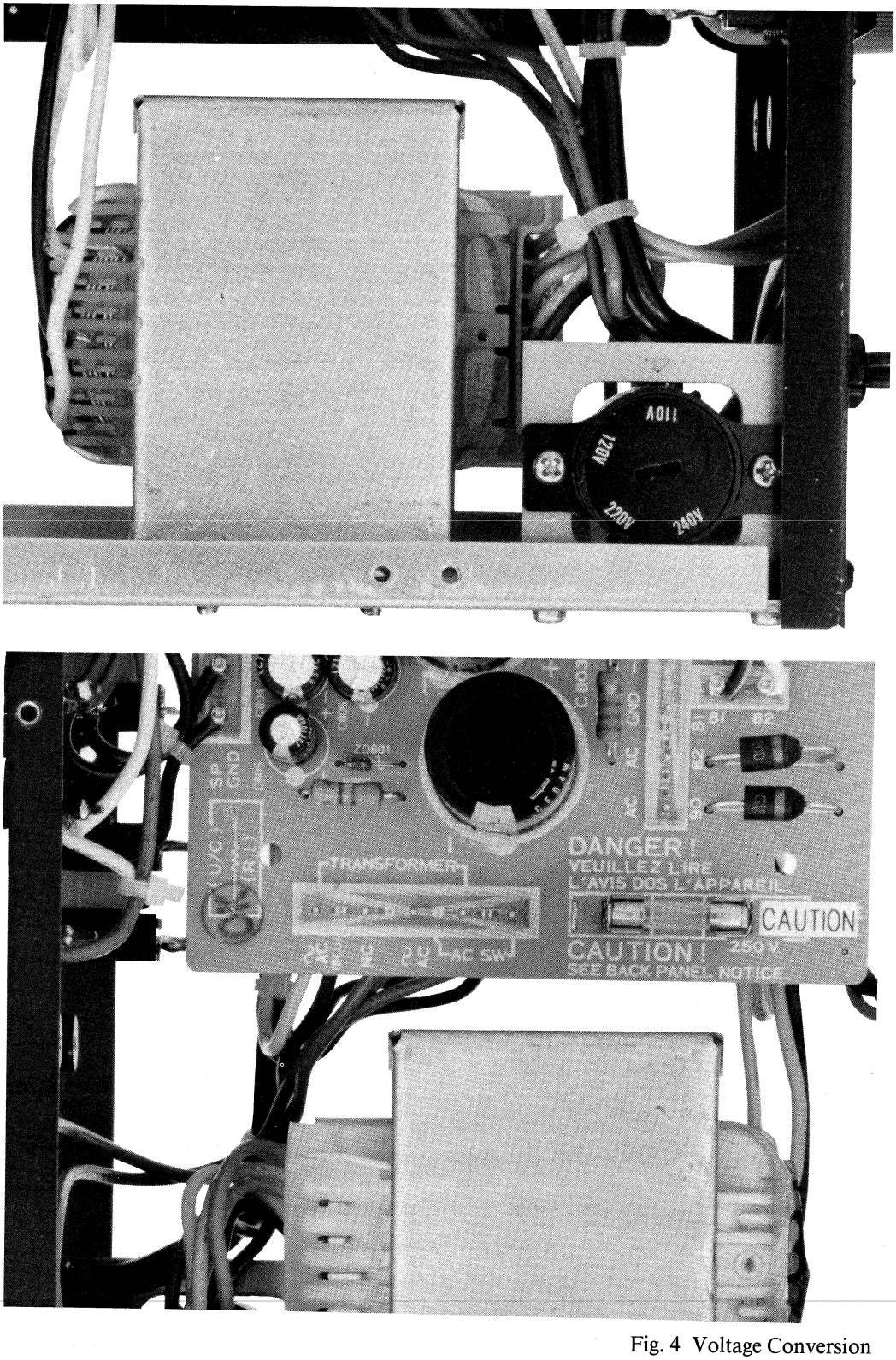


Fig. 4 Voltage Conversion

VI. TUNER ADJUSTMENT

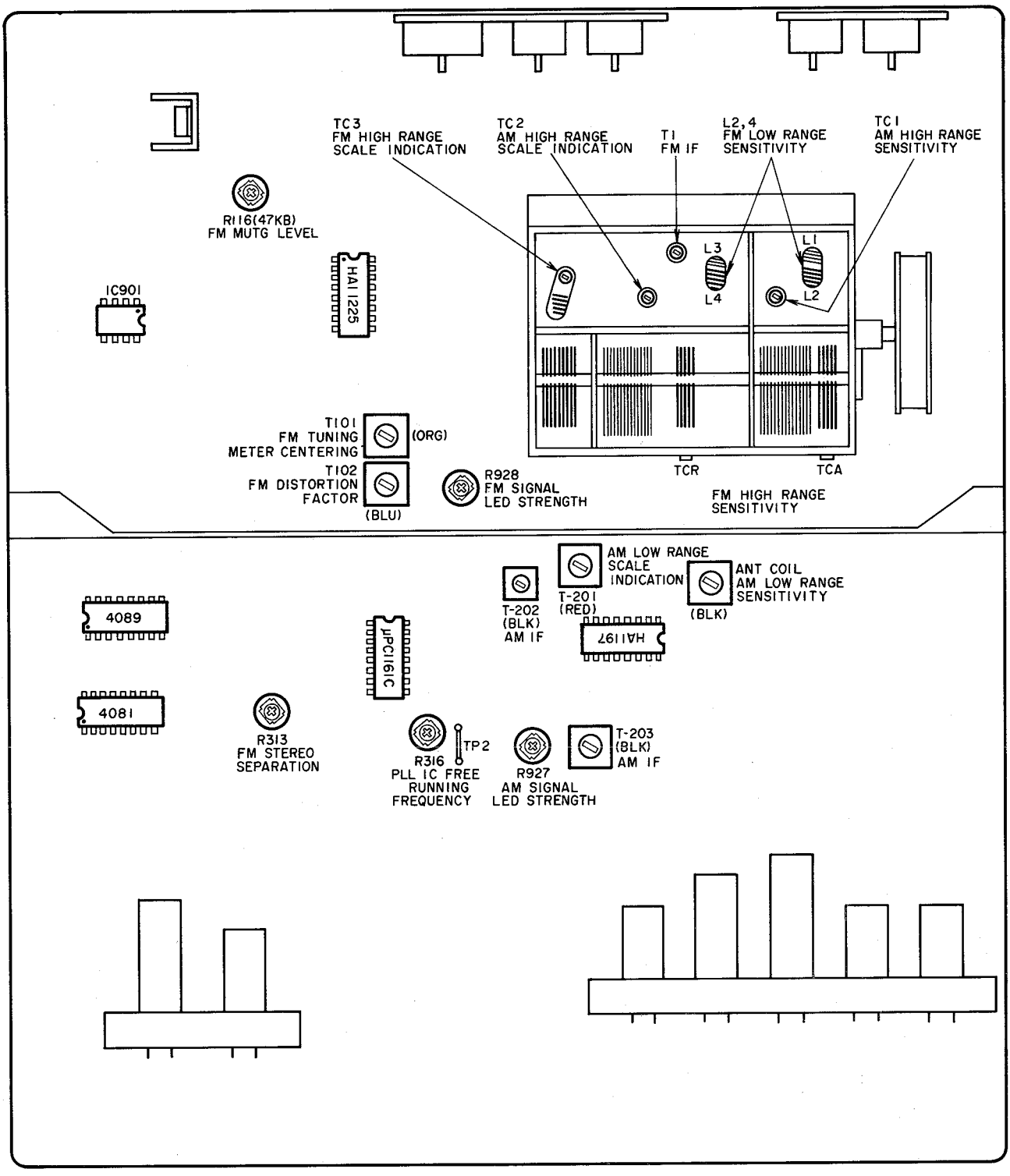


Fig. 5 Tuner EQ P.C Board

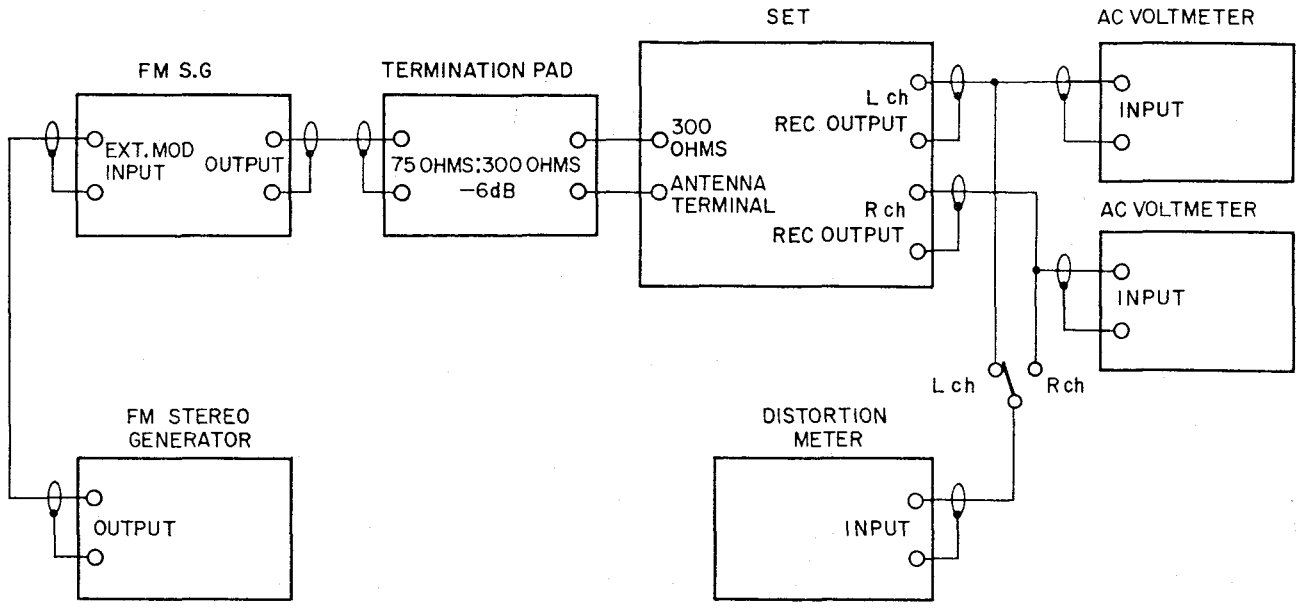


Fig. 6 Instrument Connections

1. FM ADJUSTMENT (Refer to Fig. 5, 6)

Step	Adjustment Item	Adjustment Point	Result	Remarks
1	Front End IF Coil	T1 (Front End)	Maximum Noise Level	SELECTOR to FM. Turns only noise without interference from broadcasting.
2	Distortion Factor	T102 (BLU)	Less than 0.3% Distortion Factor	98 MHz, 60 dB (mono) input. Less than 0.3% on both channels.
3	Tuning LED Centering	T101 (ORG)	Centered Tuning LED must be light	98 MHz 60 dB (mono) input.
4	High Range Scale Indication	TC-3 (Front End)	Maximum Output	108 MHz, 60 dB (mono) input. TUNING INDICATOR to 108 MHz Error: Within ±250 kHz
5	Confirmation of Low Range Scale Indication		Maximum Output	88 MHz, 60 dB (mono) input. TUNING INDICATOR to 88 MHz, Error: Within ±250 kHz.
6	High Range Sensitivity	TC-R, TC-A (Front End)	Less than 3% Distortion Factor	108 MHz, Less than 6 dB (mono) input.
7	Low Range Sensitivity	L2, L4 (Front End)	Less than 3% Distortion Factor	88 MHz, Less than 6 dB (mono) input. See-NOTE 1, 2.
8	Mute Level	R116 (47 kB)	No signal emitted from output	MUTE SW to ON 98 MHz, 30 dB (mono) input.
9	PLL IC Free Running Frequency	R316 (10 kB)	76 kHz ±0.1 kHz	Frequency Counter to Test Point 2. See NOTE 3.
10	Stereo Indicator Lighting Confirmation			Stereo Indicator must be light.
11	Stereo Separation (Left → Right)	R313 (470 kB)	More than 40 dB	98 MHz, 60 dB (stereo), L ch input. Minimum output of R ch.
12	Stereo Separation (Right → Left)	R313 (470 kB)	More than 40 dB	98 MHz, 60 dB (stereo), R ch input. Maximum output of L ch.
13	Signal Strength Indication	R928 (10 kB)	40 dB ±12 dB	98 MHz Signal LED is to light up.

Chart-1

NOTES:
1. When the specified sensitivity of 6 dB cannot be obtained at the two frequency points, 88 MHz and 108 MHz repeat adjustment as in Step 7.
2. When the distortion factor of the sensitivity still does not comply with the data specifications, adjust by turning the Front End FM IF coil core but not any more than 1/2 turn.
3. The free Running Frequency of the PLL IC must be exactly 76.00 kHz.

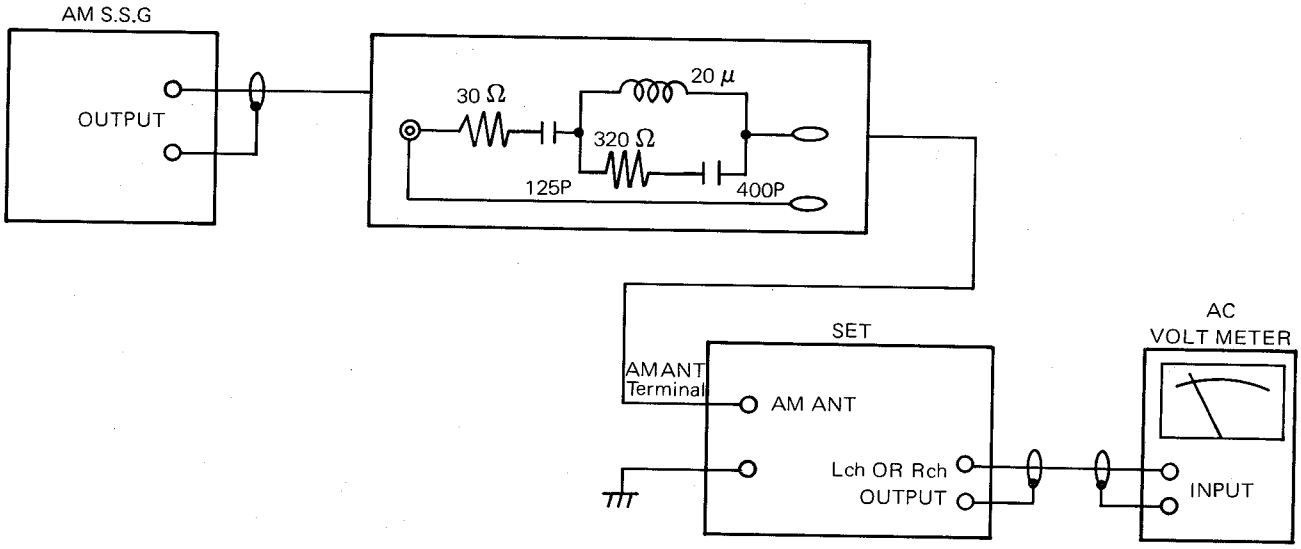


Fig. 7 Instrument Connections

2. AM ADJUSTMENT (Refer to Figs. 5, 7)

Step	Adjustment Item	Adjustment Point	Result	Remarks
1	AM IF Coil	T202 (BLK) T203 (BLK)	Maximum Output	1,400 kHz, 35 dB input
2	Low Range Scale Indication	T201 (RED)	Maximum Output	SELECTOR to AM 520 kHz, 35 dB input. TUNING INDICATOR to 520 kHz. Error: Within 2%
3	High Range Scale Indication	TC2 (Front End)	Maximum Output	1,400 kHz, 35 dB input. TUNING INDICATOR to 1,400 kHz. Error: Within 2%
4	Low Range Sensitivity	ANT. Coil (BLK)	Maximum Output Minimum Distortion Factor	520 kHz, 35 dB input. Less than 10% Distortion Factor.
5	High Range Sensitivity	TC1 (Front End)	Maximum Output Minimum Distortion Factor	1,400 kHz, 35 dB input. Less than 10% Distortion Factor.
6	Signal Strength Indication	R927 (10 kB)	50 dB ±12 dB	1000 kHz LED is to light up.

Chart-2

NOTE: For best result, repeat STEPs 1 through 5 two or three times.

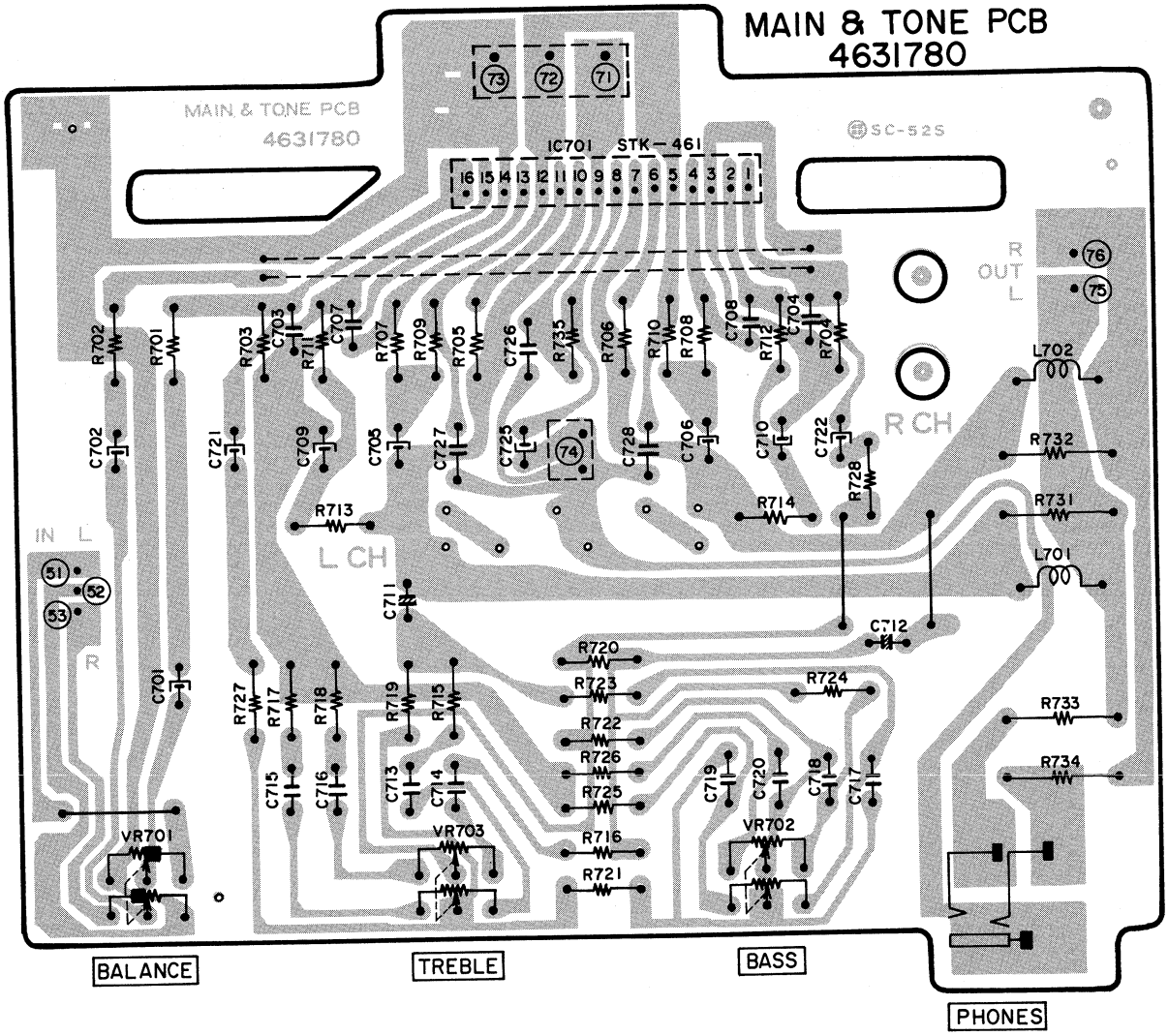
VII. CLASSIFICATION OF VARIOUS P.C BOARDS

1. P.C BOARD TITLES AND IDENTIFICATION NUMBERS

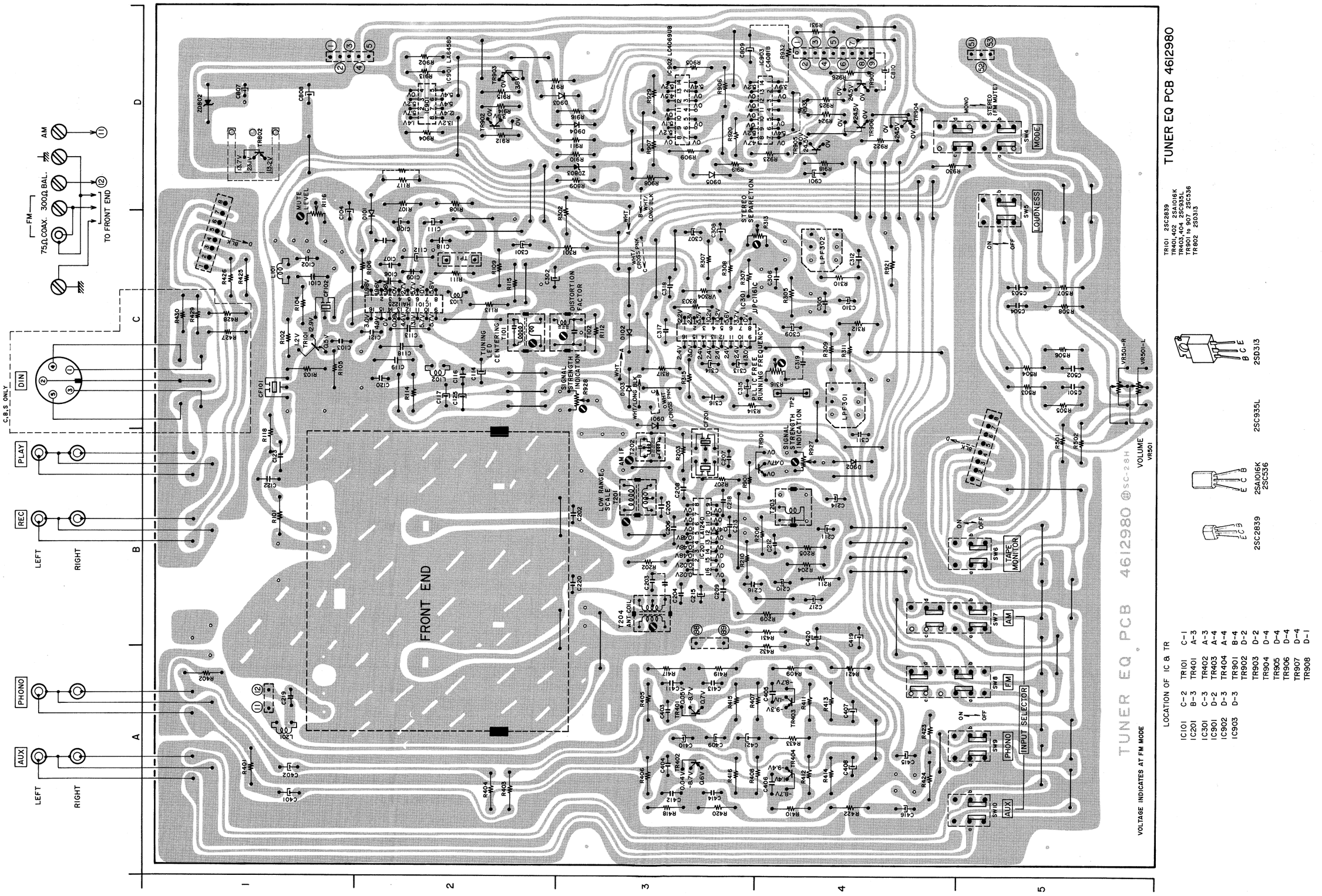
P.C Board Title	P.C Board Number
TUNER EQ P.C Board	4612980
LED P.C Board	461304A
REG P.C Board	463179A
SPEAKER P.C Board	4631800
MAIN & TONE P.C Board	4631840

2. COMPOSITION OF VARIOUS P.C. BOARDS

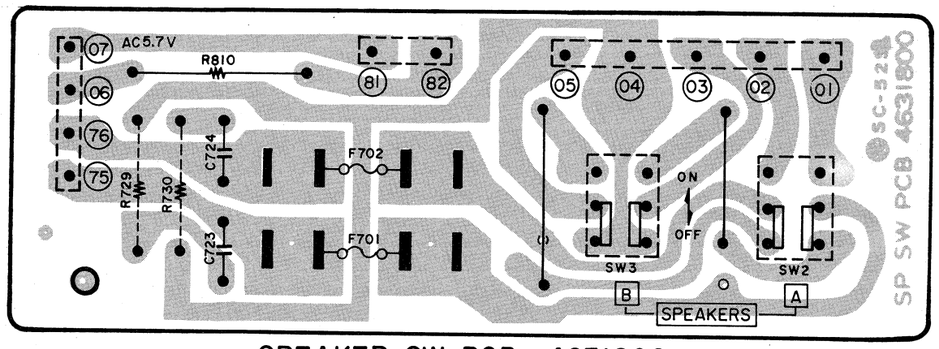
1) MAIN & TONE P.C Board 4631780



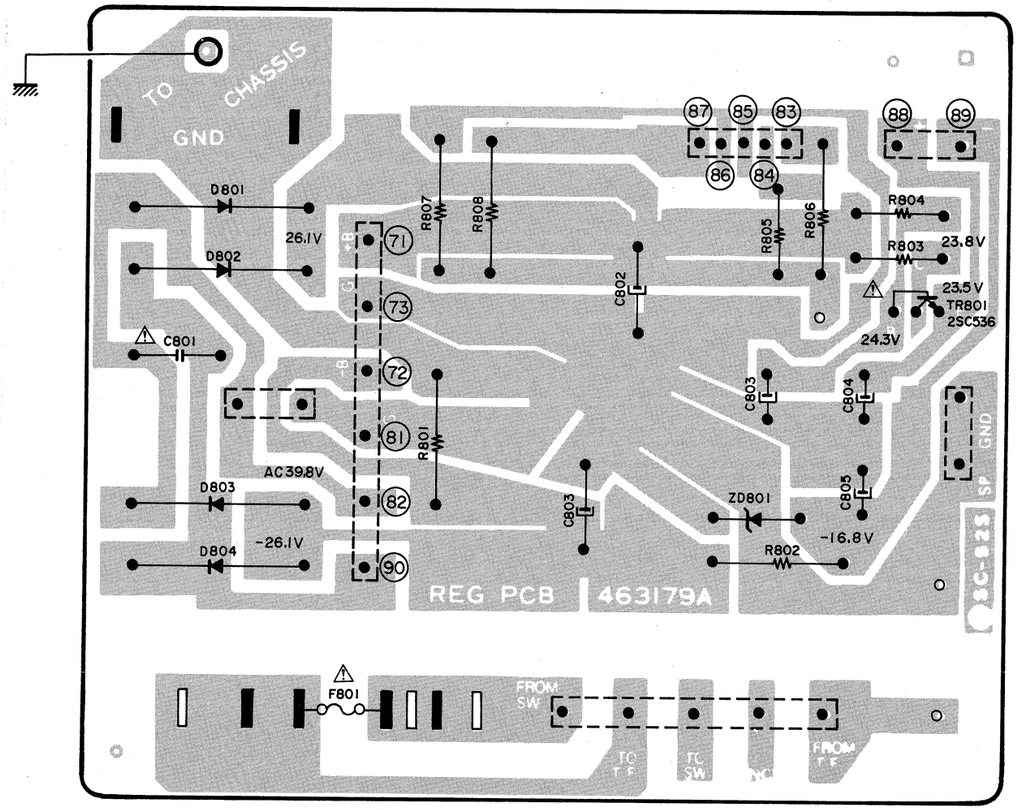
2) TUNER EQ P.C Board 4612980



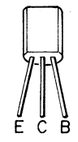
3) Speaker P.C Board 4631800, REG P.C Board 463179A and LED PC. Board 461304A



SPEAKER SW PCB 4631800



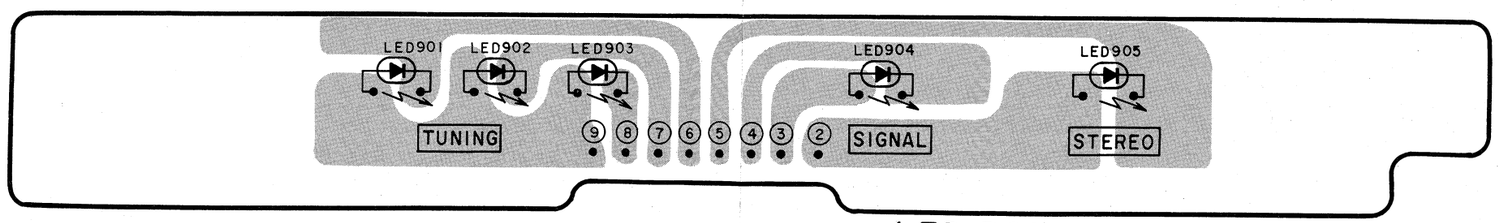
REG. PCB 463179A



2SC536

WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SURETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT



LED PCB 461304A

SECTION 2

PARTS LIST

TABLE OF CONTENTS

RECOMMENDED SPARE PARTS 21
1. TUNER P.C BOARD BLOCK 21
2. ASSEMBLY BLOCK 22
3. FINAL ASSEMBLY 23

INDEX 24

Resistor and Capacitor which are not listed in this parts list, please refer to COMMON LIST FOR SERVICE PARTS.

ATTENTION

1. When placing an order for parts, be sure to list the parts no. model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped or the wrong parts will be delivered.
2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.
3. Because parts number and parts unit supply in the Preliminary Parts List may be partially changed, please use this parts list for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List shows the parts that are considered necessary for repairs. Other parts, such as resistors and capacitors, are shown in the "Common List for Service Parts". Select and order such parts from the "Common List for Service Parts".
2. The Recommended Spare Parts shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not be supplied in principle.
4. How to read list

a) Mechanism Block

2. HEAD BASE BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
2-1x	BH-T2023A320A	HEAD BASE BLOCK GX-F66R
2-2	HP-H2206A010A	HEAD R/P PR4-8FU C
2-3	ZS-477876	PAN20x03STL CMT
2-4	ZS-536488	BID20x08STL CMT
2-5	ZG-402895	CS ANGLE ADJUST SPRING

- SP (Service Parts) Classification
- A small "x" indicates the inability to show that particular part in the Photo or Illustration.
- This number corresponds with the individual parts index number in that figure
- This number corresponds with the Figure Number

b) P.C Board Block

6. SYS. CON. P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
6-1	BA-T2034A070A	PC SYS CON BLK GX-F44R
6-IC1	EI-324536	IC HD14049BP
6-IC2	EI-336801	IC MB8841-564M
6-IC3	EI-331661	IC SN7405N
6-IC4	EI-336725	IC M54527P
6-TR1to4	ET-200985	TR 2SC2603 F,G
6-TR5to28	ET-554657	TR 2SA733A P,Q
6-D1	ED-318292	D SILICON H 1S2473T-77 T26
6-D2to4	ED-308952	D GERMA V 1K34A-LR F07
6-D5to10	ED-318292	D SILICON H 1S2473T-77 T26
6-X1	EI-318384	OSC X'TAL NC-18C 3.579545MHZ

- SP (Service Parts) Classification
- This reference numbers corresponds with symbol numbers of Schematic Diagrams.

5. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List. It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index.

WARNING

⚠ INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.

AVERTISSEMENT

⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SURETE. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES COMPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT.

RECOMMENDED SPARE PARTS

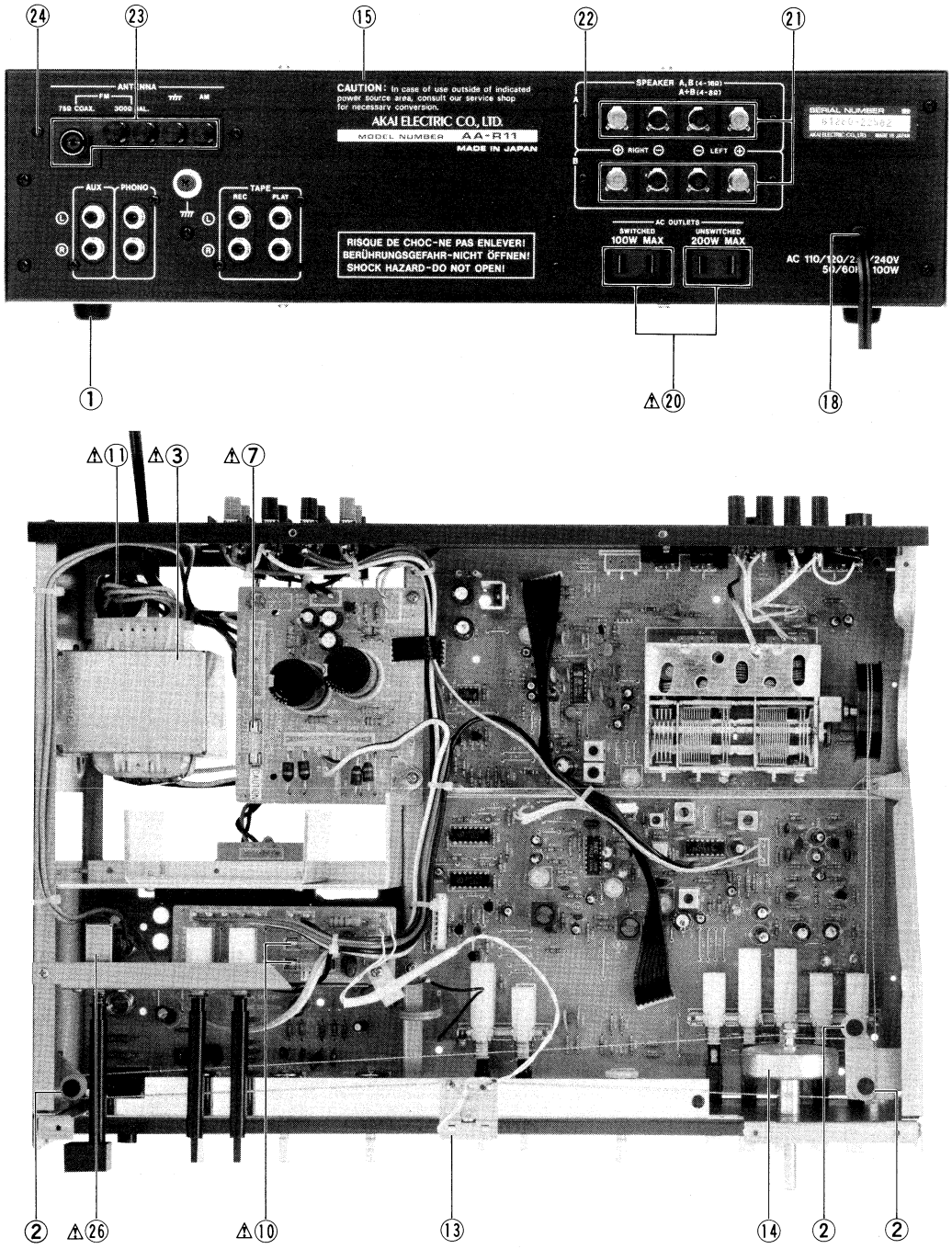
Because, if the parts listed below are on hand, almost any repair va be accomplished, we suggest that you stock these Recommended Spare Parts Items.

REF. NO.	PARTS NO.	DESCRIPTION
1	BT-708015	⚠ TRANS POWEER T-1-492 (U)
2	BT-708014	⚠ TRANS POWER T-1-408 (E)
3	BT-708016	⚠ TRANS POWER T-1-493 (S)
4	ED-708060	D SILICON GP20D-L
5	ED-301911	D SILICON H DS448
6	ED-708045	D ZENER GZA13Z
7	ED-708061	D ZENER GZA16Z
8	ED-708046	D ZENER GZA5.1Y
9	EF-708020	⚠ FUSE 250V T1.25A (F801) (U)
10	EF-708021	⚠ FUSE 250V T2.5A (F701, 702)
11	EF-708019	⚠ FUSE 250V T800MA (F801) (E, S)
12	EF-708019	⚠ FUSE 250V T800MA (F801) (U)
13	EI-703843	IC HA11225
14	EI-293185	IC LA1240
15	EI-708047	IC LA6458D
16	EI-708048	IC LC4069UB
17	EI-708049	IC LC4081B
18	EI-708057	IC STK-461
19	EI-703853	IC UPC1161C
20	EJ-703868	PHONE J
21	ER-708036	FILTER CE AA-R11
22	ER-706132	FILTER CE SF Z450A
23	ER-703856	FILTER LPF VSL-231C
24	ES-708064	⚠ SW PUSH SDL1P
25	ES-708055	SW PUSH 2 THROW AA-R11
26	ES-708062	SW PUSH 2 THROW SUF24
27	ES-708054	SW SELECT AA-R11
28	ET-708053	TR 2SA1016K G
29	ET-708035	TR 2SC2839 E
30	ET-708050	TR 2SC536 G, H
31	ET-635218	TR 2SC945L K, P, Q, R
32	ET-336941	TR 2SD313 E, F
33	EV-706125	R S-FIX SR19R 0.15W 473
34	EV-706114	R S-FIX SR19R 0.15W 474
35	EV-700302	R S-FIX SR19R 103
36	EV-708058	VR ROTARY V16L3G3 250KMN
37	EV-708059	VR ROTARY V16L4G3 100KCX2
38	EV-708056	VR ROTARY V16L4G3 250KBX2

1. TUNER P.C BOARD BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
1-1	BA-708033	PC TUNER BLK AA-R11 (U)
1-2	BA-708032	PC TUNER BLK AA-R11 (E) (E, S)
		TUNER EQ P.C BOARD
1-3	EE-708034	FRONT END FB111U AA-R11
1-4	EJ-701735	CONNECTOR DIN M0088 5P (E, S)
1-5	EJ-703842	PIN J
1-IC101	EI-703843	IC HA11225
1-IC201	EI-293185	IC LA1240
1-IC301	EI-703853	IC UPC1161C
1-IC901	EI-708047	IC LA6458D
1-IC902	EI-708048	IC LC4069UB
1-IC903	EI-708449	IC LC4081B
1-TR101	ET-708035	TR 2SC2839 E
1-TR401, 402	ET-708053	TR 2SA1016K G
1-TR403, 404	ET-635218	TR 2SC945L K,P, Q, R
1-TR802	ET-336941	TR 2SD313 E,F
1-TR901 to 907	ET-708050	TR 2SC536 G, H
1-D101 to 103	ED-301911	D SILICON H DS448
1-D901 to 905	ED-301911	D CILICON H DS448
1-ZD802	ED-708045	D ZENER GZA13Z
1-ZD803	ED-708046	D ZENER GZA5, 1Y
1-T101	EO-703846	COIL FM DET (1) AA-R20
1-T102	EO-703847	COIL FM DET (2) AA-R20
1-T201	EO-703808	COIL OSC AM
1-T202	EO-703932	COIL AM IFT AA-R20
1-T203	EO-701852	COIL DET AM
1-T204	EO-708044	COIL ANT AA-R11
1-L101, 102	EO-703849	COIL RC-855 2,2UH M
1-L103	EO-703848	COIL 22UH
1-L201	EO-703849	COIL RC-855 2.2UH M
1-CF101, 102	ER-708036	FILTER CE AA-R11
1-CF201	ER-706132	FILTER CE SFZ450A
1-LPF301, 302	ER-703856	FILTER LPF VSL-231C
1-SW4-5	ES-708055	SW PUSH 2THROW AA-R11
1-SW6-10	ES-708054	SW SELECT AA-R11
1-VR510	EV-708056	VR ROTARY V16L4G3 250KBX2
1-R116	EV-706125	R S-FIX SR19R 0.15W 473
1-R207	ER-324480	⚠ R CB H SNP FS RDS 1/4W 470J
1-R209	ER-333616	⚠ R CB H SNP FS RDS 1/2W 151J
1-R313	EV-706114	R S-FIX SR19R 0.15W 474
1-R316	EV-700302	R-S-FIX SR19R 103
1-R431, 432	ER-200940	⚠ R CB H SNP FS RDS 1/4W 561J
1-R809	ER-315062	R CB H F10 RDS 1/4W 561J
1-R927, 928	EV-700302	R S-FIX SR19R 103
1-C217	EC-708043	C TT V R47M 50.0DC
1-C313	EC-708039	C TT V R22M 50.0DC
1-C314	EC-708042	C TT V 1ROM 50.0DC
1-C315	EC-708040	C TT V 3R3M 25.0DC
1-C316	EC-703861	C STY 471J 50V
		MAIN & TONE P.C BOARD
1-IC701	EI-708057	IC STK-461
1-L701, 702	EO-701714	COIL CH 1UH
1-VR701	EI-708058	VR ROTARY V16L3G3 250KMN
1-VR702, 703	EV-708059	VR ROTARY V16L463 100KCX2
1-R705, 706	ER-708038	R CT 2W R33J
1-R731, 732	ER-341940	⚠ R OMF H SNP FS 1W 100J
1-R733, 734	ER-708037	⚠ R OMF H SNP FS 1W 331J
1-6	EJ-703868	PHONE J
		REGULATE P.C BOARD
1-TR801	ET-708050	TR 2SC536 G, H
1-D801 to 804	ED-708060	D SILICON GP20D-L
1-ZD801	ED-708061	D ZENER GZA16Z
1-R801	ER-341632	R OMF H SNP FS 1W 222J
1-R802	ER-321620	⚠ R OMF H SNP FS 1W 471J
1-R806	ER-708051	⚠ R OMF H SNP FS 1F 390J
1-R807	ER-313515	⚠ R OMF H SNP FS 1W 152J
1-R808	ER-341632	⚠ R OMF H SNP FS 1W 222J
1-C801	EC-703905	C CE 103 500V
1-C802, 803	EC-708067	C TT 472M 35.0DC
		SP SW P.C BOARD
1-SW2-3	ES-708062	⚠ SW PUSH 2THROW SUF24
1-R729, 730	ER-708068	⚠ R OMF H SNP FS 1W 4R7J
1-R810	ER-307245	⚠ R OMF H SNP FS 2W 181J

ASSEMBLY BLOCK

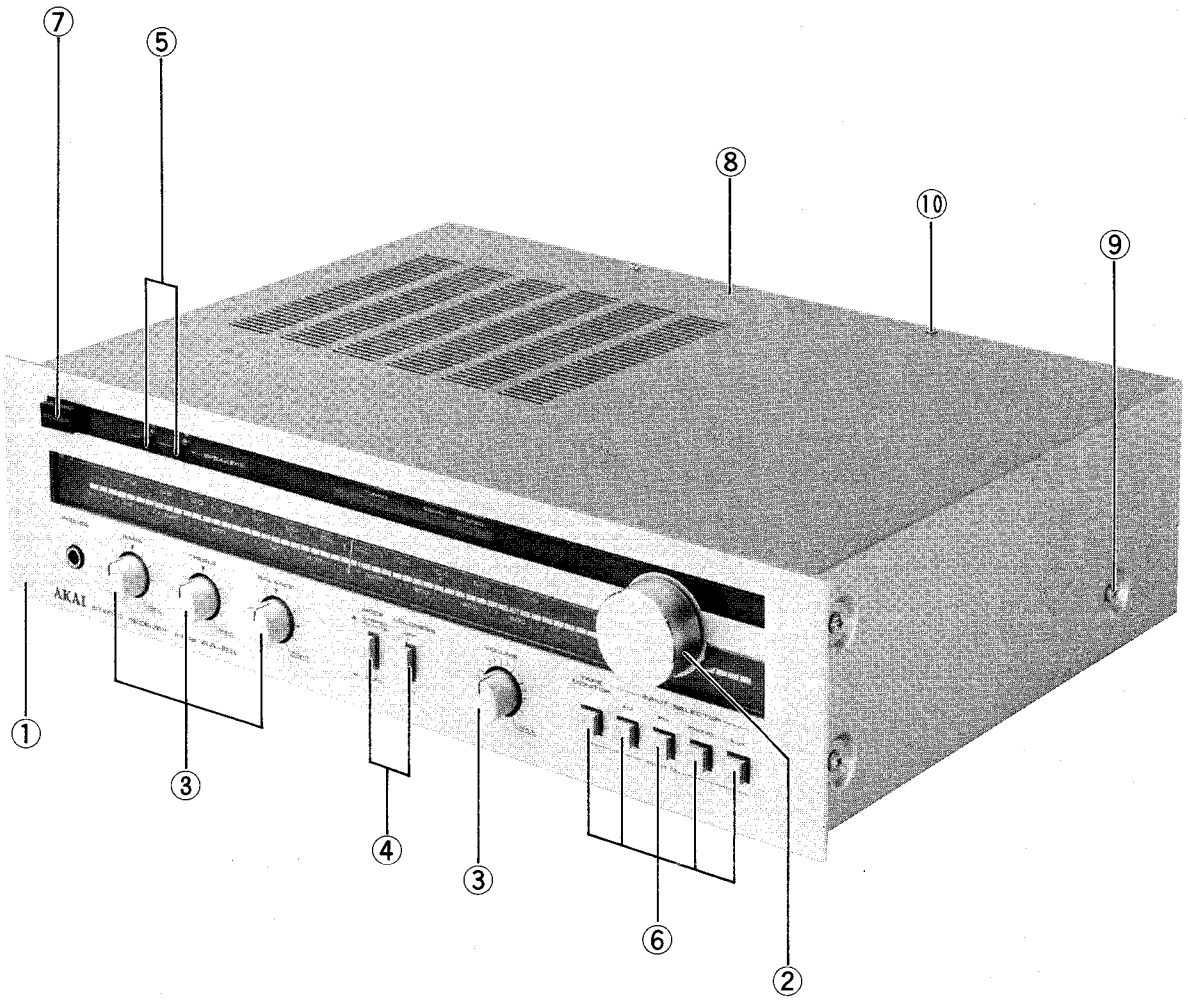


2. ASSEMBLY BLOCK

REF. NO.	PARTS NO.	DESCRIPTION
2-1	SA-708012	FOOT AA-R11
2-2	TA-708013	PULLEY AA-R11
2-3	BT-708015	⚠ TRANS POWER T-1-492 (U)
2-4x	BT-708014	⚠ TRANS POWER T-1-408 (E)
2-5x	BT-708016	⚠ TRANS POWER T-1-493 (S)
2-6x	ZS-708018	PT PAN40X06STL CMT
2-7	EF-708020	⚠ FUSE 250V T1.25A (F801) (U)
2-8x	EF-708019	⚠ FUSE 250V T800MA (F801) (U)
2-9x	EF-708019	⚠ FUSE 250V T800MA (F801) (E, S)
2-10	EF-708021	⚠ FUSE 250V T2.5A (F701, 702)
2-11	EJ-700279	⚠ VOLT SELECTOR (U)
2-12x	ZG-703804	SPRING (K) AA-R20
2-13	TA-708022	POINTER AA-R11
2-14	TA-708023	DIAL SHAFT
2-15	BD-708025	PANEL REAR BLK AA-R11 (U)
2-16x	BD-708024	PANEL REAR BLK AA-R11 (E)
2-17x	BD-708026	PANEL REAR BLK AA-R11 (S)
2-18	EZ-703829	STRAIN RELIEF SR-3P-4 (U)
2-19x	EZ-701834	STRAIN RELIEF SR4N-4 (E, S)
2-20	EJ-703831	⚠ AC SOCKET AA-R20 (U)
2-21	EJ-703832	SPEAKER TERMINAL
2-22	ZS-666336	T2PAN30X08STL CMT
2-23	EJ-708027	ANT TERMINAL 5P AA-R11
2-24	ZS-666336	T2PAN30X08STL CMT
2-25	EJ-708029	TERMINAL 1P AA-R11
2-26	ES-708064	⚠ SW PUSH SDL1P (SW1)
2-27x	EC-708065	⚠ C EC 103 400DC (C1)

When ordering parts, please quote Parts Number, Description and Model Number.

FINAL ASSEMBLY



3. FINAL ASSEMBLY

REF. NO.	PARTS NO.	DESCRIPTION
3-1	BD-708003	PANEL FRONT BLK AA-R11
3-2	SK-708004	KNOB TUNING AA-R11
3-3	SK-708005	KNOB 11SL-18D AA-R11
3-4	SK-708007	KNOB VOL AA-R11
3-5	SK-708008	KNOB VOL AA-R11
3-6	SK-701815	KNOB 99SQ
3-7	SK-708009	KNOB POWER AA-R11
3-8	SP-708010	COVER UPPER AA-R11
3-9	ZS-316650	PAN4DX08STL NI3
3-10	ZS-708011	T2PAN30X06STL NI3

INDEX

Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.	Parts No.	Ref. No. & Symbol No.
BA-708032	1-2	EV-700302	1-R316				
BA-708033	1-1	EV-700302	1-R927, 928				
BD-708003	3-1	EV-706114	1-R313				
BD-708024	2-16x	EV-706125	1-R116				
BD-708025	2-15	EV-708056	1-VR510				
BD-708026	2-17x	EV-708058	1-VR701				
BT-708014	2-4x	EV-708059	1-VR702, 703				
BT-708015	2-3	EZ-701834	2-19x				
BT-708016	2-5x	EZ-703829	2-18				
EC-703861	1-C316	SA-708012	2-1				
EC-703905	1-C801	SK-701815	3-6				
EC-708039	1-C313	SK-708004	3-2				
EC-708040	1-C315	SK-708005	3-3				
EC-708042	1-C314	SK-708007	3-4				
EC-708043	1-C217	SK-708008	3-5				
EC-708065	2-27x	SK-708009	3-7				
EC-708067	1-C802, 803	SP-708010	3-8				
ED-301911	1-D901 to 905	TA-708013	2-2				
ED-301911	1-D101 to 103	TA-708022	2-13				
ED-708045	1-ZD802	TA-708023	2-14				
ED-708046	1-ZD803	ZG-703804	2-12x				
ED-708060	1-D801 to 804	ZS-316650	2-12x				
ED-708061	1-ZD801	ZS-666336	2-22				
EE-708034	1-3	ZS-666336	2-24				
EF-708019	2-8x	ZS-708011	3-10				
EF-708019	2-9x	ZS-708018	2-6x				
EF-708020	2-7						
EF-708021	2-10						
EI-293185	1-IC201						
EI-703843	1-IC101						
EI-703853	1-IC301						
EI-708047	1-IC901						
EI-708048	1-IC902						
EI-708049	1-IC903						
EI-708057	1-IC701						
EJ-700279	2-11						
EJ-701735	1-4						
EJ-703831	2-20						
EJ-703832	2-21						
EJ-703842	1-5						
EJ-703868	1-6						
EJ-708027	2-23						
EJ-708029	2-25						
EO-701714	1-L701, 702						
EO-701852	1-T203						
EO-703808	1-T201						
EO-703846	1-T101						
EO-703847	1-T102						
EO-703848	1-T103						
EO-703849	1-L201						
EO-703849	1-L101, 102						
EO-703932	1-T202						
EO-708044	1-T204						
ER-200940	1-R431, 432						
ER-307245	1-R810						
ER-313515	1-R807						
ER-315062	1-R809						
ER-321620	1-R802						
ER-324480	1-R207						
ER-333616	1-R209						
ER-341632	1-R808						
ER-341632	1-R801						
ER-341940	1-R731, 732						
ER-703856	1-LPF301, 302						
ER-706132	1-CF201						
ER-708036	1-CF101, 102						
ER-708037	1-R733, 734						
ER-708038	1-R705, 706						
ER-708051	1-R806						
ER-708068	1-R729, 730						
ES-708054	1-SW6-10						
ES-708055	1-SW4-5						
ES-708062	1-SW2-3						
ES-708064	2-26						
ET-336941	1-TR802						
ET-635218	1-TR403, 404						
ET-708035	1-TR101						
ET-708050	1-TR901 to 907						
ET-708050	1-TR801						
ET-708053	1-TR401, 402						

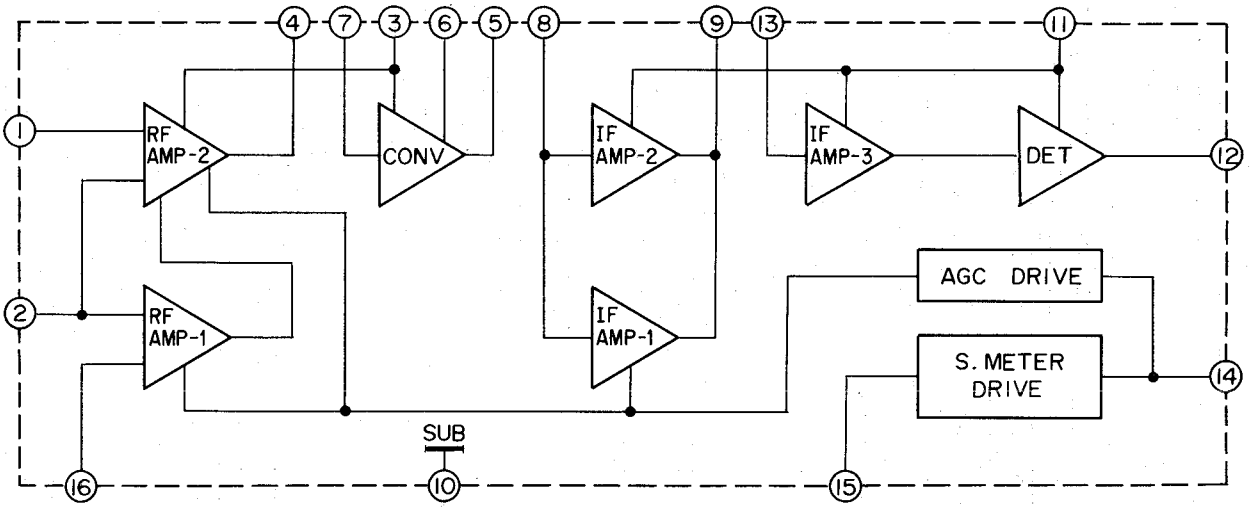
SECTION 3

SCHEMATIC DIAGRAM

TABLE OF CONTENTS

1. SCHEMATIC DIAGRAM OF ICs 25
2. AA-R11 NO. 1640658A SCHEMATIC DIAGRAM 27

LA1240



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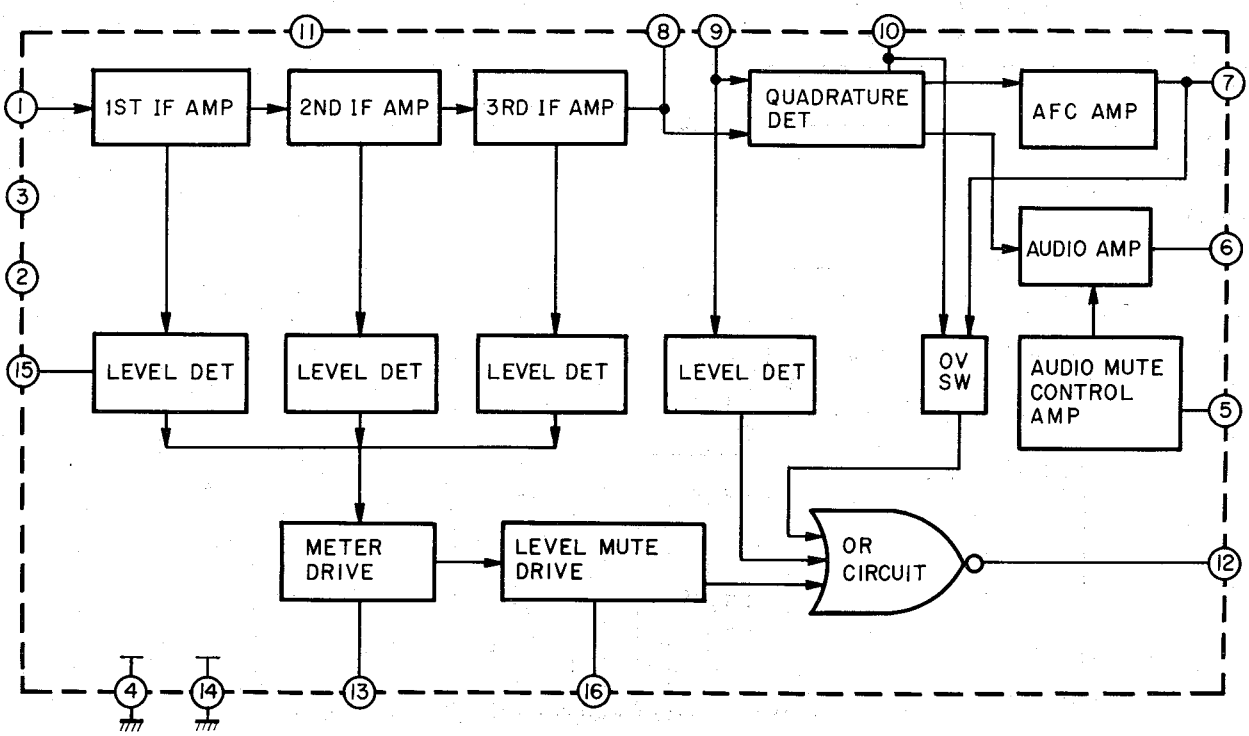

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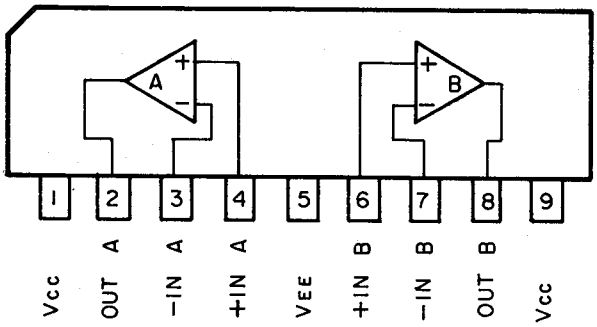

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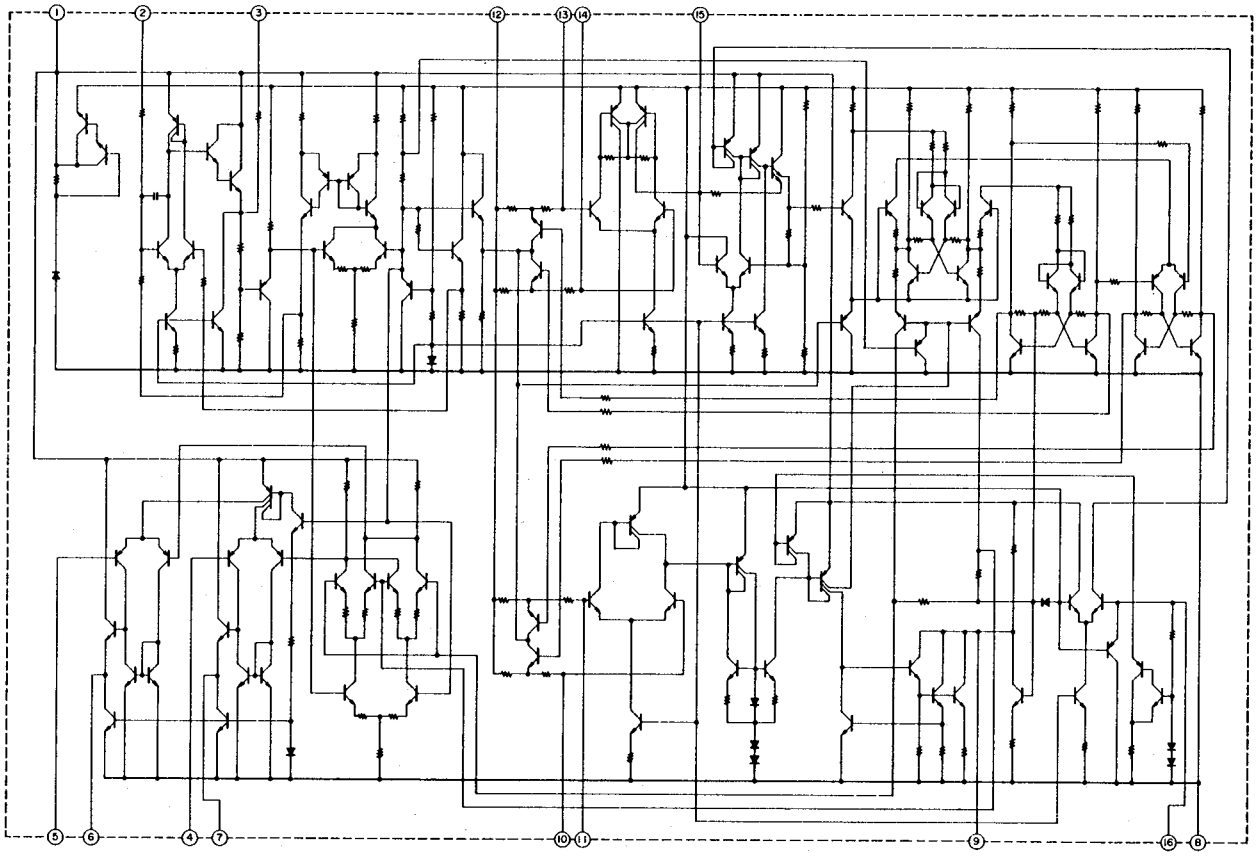

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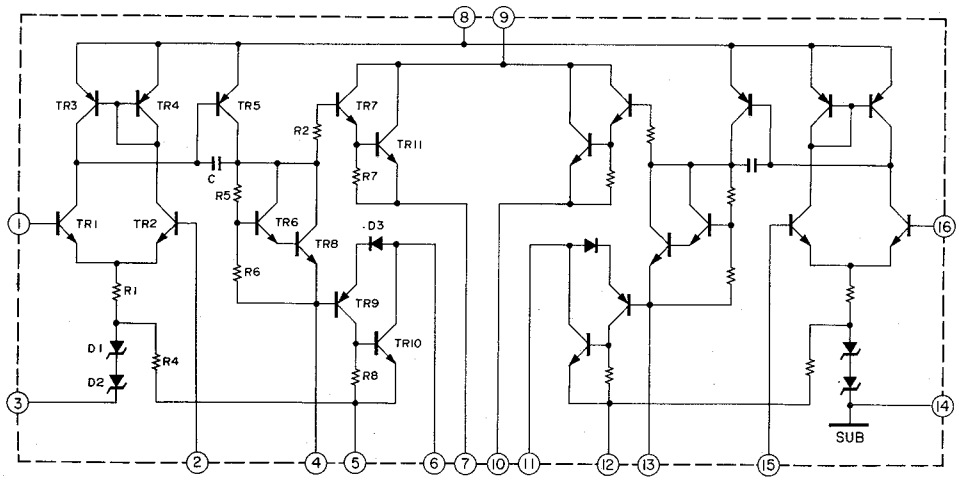
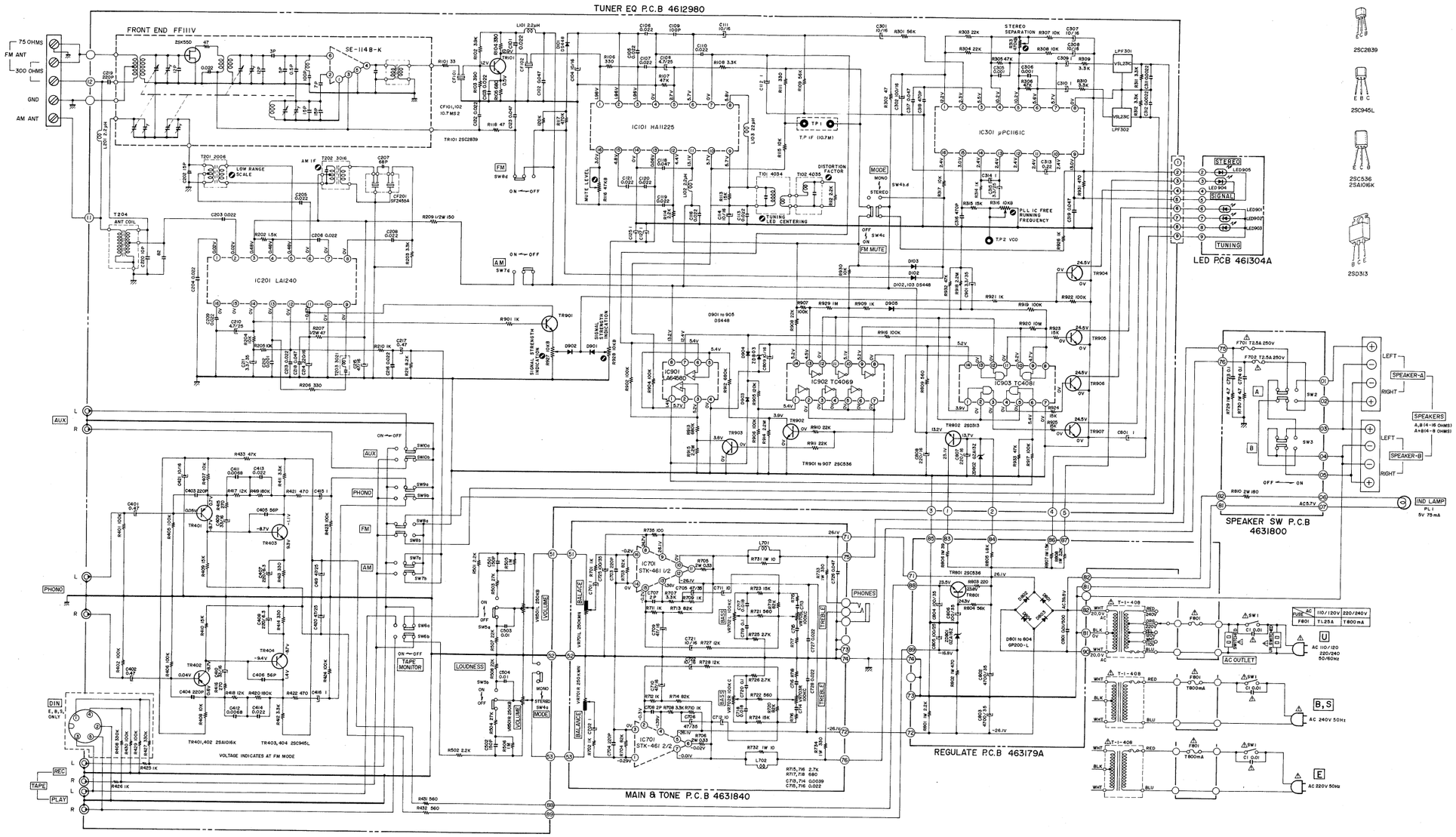


AA-RII

TUNER EQ P.C.B 4612980



WARNING: ⚠INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS

AVERTISSEMENT: ⚠ IL INDIQUE LES COMPOSANTS CRITIQUES DE SÛRETÉ. POUR MAINTENIR LE DEGRE DE SECURITE DE L'APPAREIL NE REMPLACER LES CONPOSANTS DONT LE FONCTIONNEMENT EST CRITIQUE POUR LA SECURITE QUE PAR DES PIECES RECOMMANDEES PAR LE FABRICANT

NOTE
UNLESS OTHERWISE SPECIFIED
ALL RESISTORS IN OHMS 1/4W(J)
ALL CAPACITORS IN μF 50WV(J)
POWER TRANSFORMER IS DIFFEHENT ACCORDING TO AREA

AA-RII
SCHEMATIC DIAGRAM
NO. 1640658A